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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,423	08/03/2001	Varadarajan Srinivasan	N1-P102	7436

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EXAMINER

CHUNG, PHUNG M

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/922,423

Applicant(s)

SRINIVASAN ET AL.

Examiner

Phung My Chung

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nataraj et al (6,154,384) in view of Rusu et al (6,067,656).

As per claims 1, Nataraj et al disclose the invention substantially as claimed, comprising: a CAM array including a plurality of CAM cells, a plurality of bit lines and a plurality of comparand lines being adapted to provide as part of a compare operation, a comparand value for comparison with data words stored in the CAM cells. (See col. 2, lines 30-44). Nataraj et al do not specifically disclose an error detection circuit to determine whether the selected data word includes an error. However, Rusu et al disclose an error detection circuit to determine whether the selected data word includes an error and correct errors. (See Fig. 4A, col. 4, line 47 to col. 5, line 28). Therefore, it

would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the error detection circuit of Rusu et al into the CAM array of Nataraj et al so soft error can be detected in CAM array.

As per claim 2, the teaching of Nataraj et al and Rusu et al have been discussed above. Rusu et al further disclose asserting an error signal if the selected data word includes an error. (See col. 5, lines 5-8).

As per claims 3-10, 14-15, the teaching of Nataraj et al and Rusu et al have been discussed above. Rusu et al further discloses: wherein the CAM array further includes storage cells to store a plurality of validity values, each validity value indicating whether a respective row of CAM cooes contains a valid data word, the circuitry to assert the error signal being coupled to receive one of the validity values that corresponds to the selected data word and including circuitry to prevent assertion of the error signal if the one of the validity values indicates that the selected data word is not a valid data word. (Col. 5, lines 1 to col. 6, line 3).

As per claim 11, Nataraj et al further disclose: wherein each of the plurality of CAM cells is a ternary CAM cell. (Col. 1, lines 5-6 and col. 2, lines 30-31).

As per claims 12 and 13, Nataraj et al further disclose wherein the selected data word is a local mask value and is a CAM word. (Col. 1, lines 39-41).

As per claims 16-17 and 21-67, these claims are also rejected under the same rationale as set forth in claims 1-10 and 14-15.


As per claim 18-20, these claims are also rejected under the same rationale as set forth in claims 11-13.

3. Applicant's arguments with respect to claims 1-67 have been considered but are moot in view of the new ground(s) of rejection.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phung My Chung whose telephone number is 571-272-3818. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 571-272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Phung My Chung
Primary Patent Examiner
Art Unit 2133